

REMARKS

The Examiner is thanked for the due consideration given the application. This amendment is being filed concurrently with a Request for Continued Examination.

Claims 1-3 and 7-13 are pending in the application. The claims have been amended to better set forth the invention.

No new matter is believed to have been added to the application by this amendment.

The Specification

Page 3 of the specification has been objected to as containing informalities, i.e., incomplete sentences. The specification has been amended to be free from informalities.

Rejection Under 35 USC §112, Second Paragraph

Claims 1-3 and 7-12 have been rejected under 35 USC §112, second paragraph as being indefinite. This rejection is respectfully traversed.

The Official Action asserts that the specification only discloses a single flexible duct and this embodiment is not accurately reflected in claim 1. The comments in the Official Action have been considered, and claim 1 has been amended to be clear, definite and have full antecedent basis.

This rejection is believed to be overcome, and withdrawal thereof is respectfully requested.

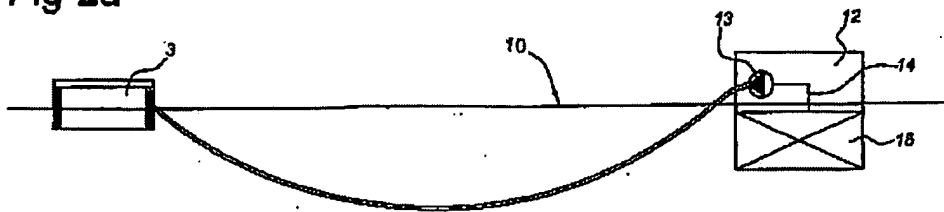
Rejection Under 35 USC §103(a)

Claims 1-3 and 7-12 have been rejected under 35 USC §103(a) as being unpatentable over MAYAU et al. (WO 02/44607 A1) in view of LIVELY (U.S. Patent 6,397,895) and GIBBS (U.S. Patent 4,339,002).

The present invention pertains to a method of supplying oil from a first floating structure to an offloading structure. The present invention entails the utilization of a single flexible duct of elastomeric material that has an internal diameter of at least 600 mm and a length of between 1,500 m and 3,00 m (claim 1). This results in the required degree of flexibility of the mid-water transfer hose of the invention connecting the floating structures and prevents wax formation, solidification, or wax forming of the oil, which is detrimental to the operation of the transfer duct and can lead to complete blocking, requiring replacement of the duct.

Flexibility of the hose of the present invention is important in order to bridge the varying positions of the two floating structures due to environmental influences, such as waves, winds and currents. As is shown in figures 2a-2c (Figure 2a is reproduced below), varying curved configurations which provide a length compensation, are provided by the duct of the invention in order to allow the floating structures 3 and 12 to approach or drift away from one another, without creating tensions in the duct.

Fig 2a



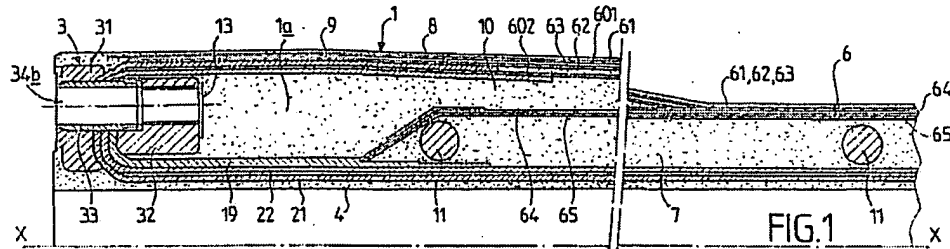
In instant claim 1 it has now been set forth that the duct lies in the upper halve of the water depth with the end parts above water level. This results in reduced cooling and reduced hydrate formation as the water higher up is warmer. Furthermore, the lower water depth results in the possibility to use an elastomeric hose for good temperature insulation which hose at greater depths would collapse due to increasing water pressure.

The end positions of the duct of the present invention can be properly inspected above the water surface. The symmetry of the duct in the length direction results in a gradual distribution of forces along his length and equalization of bending and buckling forces along its length, avoiding local stress-build up.

Furthermore, the object of the invention of providing a high throughput at reduced pumping rates is met by providing a single large-diameter duct with a friction reduction layer (new claim 13, such as a nitrile layer (claim 10), on the inner surface of the elastomeric material. The friction reduction

layer helps maintain low pumping pressures when the oil cools down slightly and viscosity is increased during transport.

MAYAU et al. pertain to a connect hose with a connect flange, where a flexible duct 1 extends between two structures. Figure 1 of MAYAU is reproduced below.



The Official Action refers to LIVELY, which pertains to an insulated steel pipe that can have an optional abrasion resistant layer. The Official Action refers to GIBBS for teachings pertaining to a hose in a curved trajectory above the sea bed and providing the hose with projection devices 28. The sea buoy discharge manifold system of GIBBS is shown in Figure 1 of the reference, which is reproduced below.

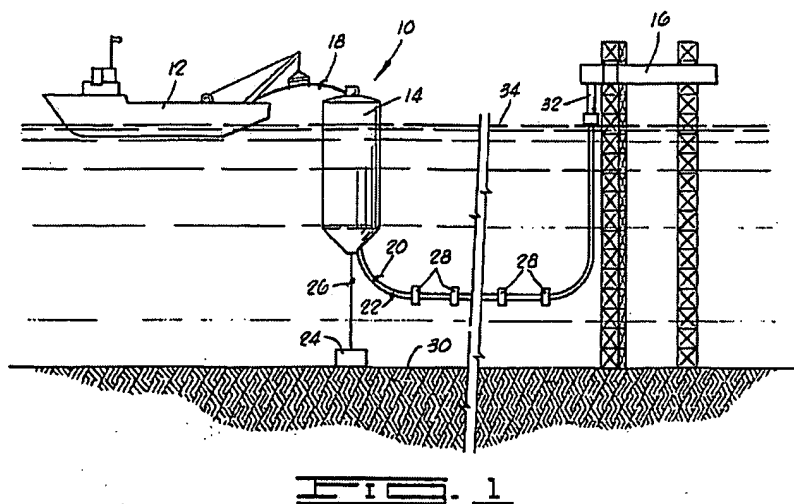


FIG. 1

However, one of ordinary skill and creativity would fail to produce independent claim 1 of the present invention from a knowledge of MAYAU et al., LIVELY and GIBBS, where claim 1 of the present invention recites: "end sections of the duct being situated above water level, the duct being situated in an upper half of a water depth, the duct arrangement being symmetrical with respect to a central vertical plane." A *prima facie* case of unpatentability has thus not been made. Claims depending upon claim 1 are patentable for at least the above reasons.

These rejections are believed to be overcome, and withdrawal thereof is respectfully requested.

Conclusion

Prior art of record but not utilized is believed to be non-pertinent to the instant claims.

The objections and rejection are believed to be overcome, obviated or rendered moot, and that no issues remain.

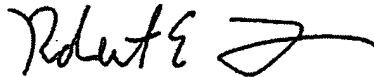
The Examiner is accordingly respectfully requested to place the application in condition for allowance and to issue a Notice of Allowability.

The Commissioner is hereby petitioned to grant any necessary extensions of time and charge any fees due to Deposit Account No. 25-0120.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

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